

REMARKS

Summary of the Amendment

Upon entry of the above amendment, claims 24, 28, 29, 32, 40, 48-50 will have been amended. Accordingly, claims 1-22 and 24-51 will be pending. Moreover, while claims 24-46 and 48-51 were previously withdrawn by the Examiner due to a restriction requirement, Applicant submits that, in view of the instant claim amendments, these claims should now be rejoined. Claims 1 and 47 are in independent form.

Summary of the Official Action

In the Office action, non-elected claims 24-46 and 48-51 were again withdrawn from examination by the Examiner. Next, the Examiner rejected elected claims 1-22 and 47 over the applied art of record. By the present amendment and remarks, Applicant submits that the rejections have been overcome, and respectfully requests reconsideration of the outstanding Office Action and allowance of the present application.

Restriction Requirement

Claims 24-46 and 48-51 were again withdrawn by the Examiner as directed to the non-elected invention. Moreover, the Examiner has maintained the restriction requirement as final.

Applicant has maintained all along that the restriction requirement was improper. Nevertheless, Applicant has herein amended the non-elected claims to depend from the elected claims, which are believed to be allowable. Accordingly, Applicant respectfully requests that claims 24-46 and 48-51 be rejoined so that all pending claims 1-22 and 24-51 can proceed to issue.

Interview of June 4, 2003

Applicant appreciates the courtesy extended by Examiner Jimenez in the interview of June 4, 2003 (incorrectly indicated on the Interview Summary as June 3, 2003). In that interview, Applicant's representative discussed, among other things, that HOLROYD discloses a flatwork ironing roll for use in commercial laundries (see col. 1, lines 1-4) and does not relate to a roll for smoothing a web. It was also explained that ironing rolls are not used to smooth a web and that objects which are laundered and ironed cannot be properly characterized as a web. Finally, Applicant's representative explained that the roll disclosed in HOLROYD is designed to be "porous", i.e., it is pervious to steam or moisture. Accordingly, a porous roll cannot properly be characterized as a solid cylindrical mass because a solid cylindrical mass is not porous.

Applicant specifically referred the Examiner to col. 5, lines 6-18 of HOLROYD which clearly indicates that the fabric covering layer is made to be pervious to steam and moisture.

P20465.A08

In contrast, the present invention, as seen for example in Fig. 1, is clearly directed to a roll covering layer that has a smooth outer surface and that is in the form of a solid cylindrical mass.

In response to these arguments, the Examiner agreed that HOLROYD is directed to a covering layer that is disclosed as being porous and/or pervious to moisture. The Examiner also agreed that this document discloses that the roll cover has nonfilled interstices and that such a pervious surface cannot properly be said to be a smooth outer surface that is arranged on a solid cylindrical mass. The Examiner further acknowledged that HOLROYD indicates (at col. 5, lines 5-10) the desirability of such interstices as allowing the covering layer to be pervious to steam and moisture which in turn results in better ironing. Thus, the Examiner agreed that HOLROYD does not disclose a roll cover that is a solid cylindrical mass, much less, one that also has a smooth outer surface, as recited in at least claims 1 and 47.

Traversal of Rejection Under 35 U.S.C. § 102(b)

Applicant traverses the rejection of claims 1-8, 12, 13, 16-18, 20, 21 and 47 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 2,534,818 to HOLROYD et al.

The Examiner asserted that this document discloses all the features recited in these claims including the thermoplastic and thermosetting plastic. Applicant respectfully traverses this rejection.

As a preliminary matter, the Examiner essentially agreed to reconsider and withdraw this rejection based upon arguments made during the interview and upon the filing of a response, i.e., that HOLROYD clearly lacks any disclosure or suggestion with regard to a roll having a covering layer comprising at least one thermosetting plastic and at least one thermoplastic, wherein *the covering layer is a solid cylindrical mass having a smooth outer surface*, as recited in at least claims 1 and 47. Accordingly, Applicant submits that the above noted claims are allowable at least for this reason.

Furthermore, Applicant submits that HOLROYD fails to disclose the invention as defined by at least independent claims 1 and 47 as amended. Notwithstanding the Office Action assertions as to what HOLROYD discloses, Applicant submits that HOLROYD fails to disclose, inter alia, a roll having a covering layer comprising at least one thermosetting plastic and at least one thermoplastic, wherein *the covering layer is a solid cylindrical mass having a smooth outer surface*, as recited in amended claims 1 and 47.

As Applicant has maintained all along, the roll cover of HOLROYD is designed to be “porous” with only the fabric yarns being coated with the resin. See text between col. 1, line 54 and col. 2, line 2. Indeed, the text of col. 5, lines 6-18 of HOLROYD clearly indicates that the fabric covering layer is made to be pervious to steam and moisture, and that “[t]he resinous treatment ... does not fill up the interstices of the fabric.” In contrast, the present invention is clearly directed to a roll covering layer that has a smooth outer surface

P20465.A08

and that is in the form of a solid cylindrical mass.

Thus, HOLROYD is directed to a covering layer that is disclosed as being porous and/or pervious to moisture. This document clearly discloses that the roll cover has nonfilled interstices. Clearly, it cannot be said that this document discloses a roll cover that is a solid cylindrical mass, much less, one that has a smooth outer surface, as recited in amended claims 1 and 47.

Applicant emphasizes that HOLROYD is directed to an ironer roll for laundries and not to a roll for smoothing a web. By way of background, Applicant notes that such ironer rolls generally have a diameter of about one foot and a length of about ten feet. On the other hand, rolls for smoothing a web of the type of Applicant's invention typically have diameters of up to five feet and lengths of up to about 40 feet.

Again, by way of background, it is noteworthy that rolls of the type disclosed in HOLROYD are manufactured in an entirely different way than the rolls of the type disclosed in the instant specification (see e.g., paragraph [0011]). For example, HOLROYD explains that the roll is made by first treating a fabric with resin in a treating bath. The fabric is then passed through two squeeze rolls 20 after which the wet fabric passes through a tender-drier casing 21. The fabric leaves the casing 21 in a substantially dry and laterally stretched condition (see col. 4, lines 57-61). After the casing 21, the fabric passes between calender rolls 22 and finally passes through a curing chamber 23 where the thermosetting resin

P20465.A08

becomes cured in the presence of a catalyst. Only after passing the curing chamber 23 is the fabric placed onto a roll core.

Thus, Applicant submits that the above-noted claims are not disclosed, or even suggested, by any proper reading of HOLROYD.

Applicant further notes that, for an anticipation rejection under 35 U.S.C. § 102(b) to be proper, each element of the claim in question must be disclosed in a single document, and if the document relied upon does not do so, then the rejection must be withdrawn.

Because HOLROYD fails to disclose at least the above mentioned features as recited in independent claims 1 and 47, Applicant submits that HOLROYD does not disclose all the claimed features recited in at least independent claims 1 and 47.

Furthermore, Applicant submits that dependent claims 2-8, 12, 13, 16-18, 20 and 21 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper reading of HOLROYD discloses or suggests, in combination: that the web is a paper web as recited in claim 2; that the roll core comprises a hard metal roll core as recited in claim 3; that the covering layer comprises a matrix material and wherein one of fillers and fibers are embedded in the matrix material as recited in claim 4; that the amount thermosetting plastic is, one of greater than and proportionally greater than, the amount of thermoplastic as recited in claim 5; that the proportion of

P20465.A08

thermosetting plastic is one of between approximately 50% and 80% as recited in claim 6; that the proportion is between approximately 60% and 75% as recited in claim 7; that the proportion is approximately 70% as recited in claim 8; that the covering layer comprises a mixture of the at least one thermosetting plastic and the at least one thermoplastic and wherein an amount of the thermosetting plastic relative to the amount of thermoplastic in the covering layer comprises a mixture ratio which is essentially constant over an axial length of the covering layer as recited in claim 12; that the covering layer comprises a mixture of the at least one thermosetting plastic and the at least one thermoplastic and wherein an amount of the thermosetting plastic relative to the amount of thermoplastic in the mixture comprises a mixture ratio which is essentially constant over a radial thickness of the covering layer as recited in claim 13; that the covering layer includes one of fillers and fibers as recited in claim 16; that the covering layer comprises a matrix material and wherein the fillers or fibers are disposed in the matrix material of the covering layer as recited in claim 17; that the covering layer includes fibers arranged in the form of one or more fiber layers as recited in claim 18; that the covering layer includes fibers and fillers as recited in claim 20; and that the fibers and fillers are encapsulated by the covering layer made of matrix material as recited in claim 21.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 102(b).

Traversal of Rejection Under 35 U.S.C. § 103(a)

Applicant respectfully traverses the rejection of claims 9-11, 14, 15, 19 and 22 under 35 U.S.C. § 103(a) as unpatentable over HOLROYD alone.

The Examiner asserted that HOLROYD fairly discloses all of the claimed features recited in these claims except for using at least two different thermoplastics and at least two different thermosetting plastics. However, the Examiner opined that such was an obvious matter of design choice. Applicant respectfully traverses this rejection.

Again, as a preliminary matter, the Examiner essentially agreed to reconsider and withdraw this rejection based upon arguments made during the interview and upon the filing of a response, i.e., that HOLROYD clearly lacks any disclosure or suggestion with regard to a roll having a covering layer comprising at least one thermosetting plastic and at least one thermoplastic, wherein *the covering layer is a solid cylindrical mass having a smooth outer surface*, as recited in at least claims 1. Accordingly, Applicant submits that the above noted claims are allowable at least for this reason.

Furthermore, notwithstanding the Office Action assertions as to what this document discloses or suggests, Applicant submits that no proper reading of or modification of this document discloses or suggests, inter alia, a roll having a covering layer comprising at least one thermosetting plastic and at least one thermoplastic, wherein *the covering layer is a solid cylindrical mass having a smooth outer surface*, as recited in amended claim 1.

As discussed above, the roll cover of HOLROYD is designed to be “porous” with only the fabric yarns being coated with the resin. See text between col. 1, line 54 and col. 2, line 2. Indeed, the text of col. 5, lines 6-18 of HOLROYD clearly indicates that the fabric covering layer is made to be pervious to steam and moisture, and that “[t]he resinous treatment ... does not fill up the interstices of the fabric.” In contrast, the present invention is clearly directed to a roll covering layer that has a smooth outer surface and that is in the form of a solid cylindrical mass.

Again, HOLROYD is merely directed to a covering layer that is disclosed as being porous and/or pervious to moisture. This document further discloses a roll cover with nonfilled interstices. Accordingly, it simply cannot be said that this document discloses or suggests a covering layer that is a solid cylindrical mass, much less, one that also has a smooth outer surface, as recited in amended claim 1.

Thus, Applicant submits that the above-noted document fails to disclose or suggest the features recited in at least independent claim 1. Because no proper modification of HOLROYD discloses or suggests at least the above-noted features of the instant invention, Applicant submits that HOLROYD fails to render unpatentable the combination of features recited in at least independent claim 1.

Furthermore, Applicant submits that there is no motivation or rationale disclosed or suggested in the art to modify HOLROYD in the manner asserted by the Examiner. Nor does

P20465.A08

the Examiner's opinion provide a proper basis for these features or for the motivation to modify this document, in the manner suggested by the Examiner. Therefore, Applicant submits that the invention as recited in at least independent claim 1 is not rendered obvious by any reasonable inspection of these disclosures.

Applicant directs the Examiner's attention to the guidelines identified in M.P.E.P. section 2141 which state that "[i]n determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification." *In re Linter*, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

As this section clearly indicates, "[o]bviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992)."

Moreover, it has been legally established that "[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430

P20465.A08

(Fed. Cir. 1990) Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." 916 F.2d at 682, 16 USPQ2d at 1432.). See also *In re Fritch*, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992) (flexible landscape edging device which is conformable to a ground surface of varying slope not suggested by combination of prior art references).

Additionally, it has been held that "[a] statement that modifications of the prior art to meet the claimed invention would have been " well within the ordinary skill of the art at the time the claimed invention was made" because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993)."

Furthermore, Applicant submits that dependent claims 9-11, 14, 15, 19 and 22 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper reading of HOLROYD discloses or suggests, in combination: that the covering layer includes at least two different thermosetting plastics as recited in claim 9; that the covering layer includes at least two different thermoplastics as recited in claim 10; that the covering layer includes at least two different thermoplastics as

P20465.A08

recited in claim 11; that the covering layer comprises a mixture of the at least one thermosetting plastic and the at least one thermoplastic and wherein an amount of the thermosetting plastic relative to the amount of thermoplastic in the mixture comprises a mixture ratio which varies over a radial thickness of the covering layer as recited in claim 14; that the amount or proportion of thermoplastic relative to the amount of the thermosetting plastic increases radially outwardly in the covering layer as recited in claim 15; that the covering layer includes one of glass, carbon, and aramide fibers as recited in claim 19; and that the covering layer includes powdered fillers as recited in claim 22.

Accordingly, Applicant requests that the Examiner reconsider and withdraw the above-noted rejection under 35 U.S.C. § 103(a) and indicate that these claims are allowable over the applied art of record.

Traversal of the Examiner's comments

With regard to the Examiner's assertions that Applicant's disclosure does not provide an explanation or definition of a solid cylindrical mass, Applicant notes that Figs. 1 and 2 clearly provides such an explanation. One having ordinary skill in the art, having reviewed the specification and drawings, would clearly understand that the covering layer 3 is a solid cylindrical mass. Moreover, Applicant is entitled to rely on the ordinary meaning of these terms and this phrase, especially when the ordinary meaning is fully supported by Applicant's

P20465.A08

figures. Finally, Applicant is entitled to rely on knowledge that is generally known in the art, i.e., in general, roll covers having the form of a solid cylindrical mass are conventional. On the other hand, Applicant submits that smoothing web roll covers having the form of a solid cylindrical mass in combination with the other recited features of at least claims 1 and 47 are not conventional.

With regard to the Examiner's assertion that ironing laundered goods is a web, Applicant respectfully disagrees. A web is a term of art that does not include articles which are laundered and ironed.

Rejoinder of non-elected claims

Applicant submits that if claims 1 and 47 are found to be allowed, as indicated by the Examiner in the Interview of June 4, 2003, the restriction requirement with respect to claims 24-46 and 48-51 would now be improper and should be withdrawn, i.e., claims 24-46 and 48-51 have been amended to depend from claims 1 and 47 and should therefore be rejoined.

Applicant refers the Examiner to MPEP 821.04 which states "if applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims which depend from or otherwise include all the limitations of the allowable product claim will be rejoined" (emphasis added). Indeed, this section specifically explains that "[p]rocess claims which depend from or otherwise include all the limitations

P20465.A08

of the patentable product will be entered as a matter of right if the amendment is presented prior to final rejection or allowance.”

As the instant Amendment is being made prior to a final rejection and allowance, Applicant respectfully requests entry and allowance of previously withdrawn claims 24-46 and 48-51, if and when claims 1-22 and 47 are found allowable.

CONCLUSION

Applicant respectfully submits that each and every pending claim of the present invention meets the requirements for patentability under 35 U.S.C. § § 112, 102 and 103 and respectfully requests the Examiner to indicate allowance of each and every pending claim of the present invention.

In view of the foregoing, it is submitted that none of the references of record, either taken alone or in any proper combination thereof, anticipate or render obvious the Applicant's invention, as recited in each of claims 1-22 and 24-51. The applied references of record have been discussed and distinguished, while significant claimed features of the present invention have been pointed out.

Further, any amendments to the claims which have been made in this response and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no

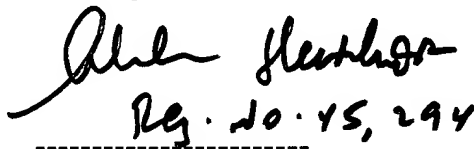
P20465.A08

estoppel should be deemed to attach thereto.

The Commissioner is hereby authorized to charge any fees necessary for consideration of this amendment to deposit account No. 19-0089.

Should there be any questions, the Examiner is invited to contact the undersigned attorney at the number listed below.

Respectfully submitted,
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